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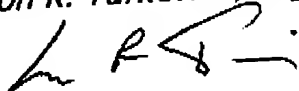Fax 202.887.0336

# MANELLI DENISON & SELTER P.L.L.C.
ATTORNEYS

## FACSIMILE TRANSMISSION

TO: TC2800          FAX: (703) 872-9306
OF: USPTO           Phone: (571) 272-2800

FROM: Leon R. Turkevich, Reg. No. 34,035    PHONE: 202.261.1059

DATE: October 6, 2004
Atty Docket: 95-308

NUMBER OF PAGES: 9 (including cover)
Appln. No. 09/496,016    Filing Date: February 1, 2000

Attached:
    Response filed April 30, 2004 with Fee Transmittal Sheet and
Stamped PTO Receipt.

# COMMISSIONER FOR PATENTS

**Attorney Docket No.:** 95-308
**Inventor(s):** Kanuri
**Serial No.:** 09/496,016      **Filed: February 1, 2000**

**Title: ARRANGEMENT FOR CONTROLLING LEARNING OF LAYER 3 NETWORK ADDRESSES IN A NETWORK SWITCH**

**Date Hand Carried: April 30, 2004**
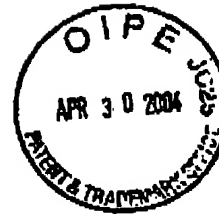
Stamp of the U.S. Patent and Trademark Office acknowledging receipt of the following is requested.

Response
Fee Transmittal Form

Papers hand delivered to Commissioner for Patents

Please return <u>stamped</u> receipt to:

Leon R. Turkevich, Esq.
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Washington, DC  20036-3307

OCT 0 6 2004

Form: PTO/SB/17 (Modified)

# REPLY/AMENDMENT FEE TRANSMITTAL

| | |
|---|---|
| Attorney Docket No. | 95-308 |
| Application Number | 09/496,016 |
| Filing Date | February 1, 2000 |
| First Named Inventor | KANURI |
| Group Art Unit | 2697 |

| AMOUNT ENCLOSED | $ 0 | Examiner Name | HA, Yvonne Quy M. |
|---|---|---|---|

## FEE CALCULATION (fees effective 10/01/2001)

| CLAIMS AS AMENDED | Claims Remaining After Amendment | Highest Number Previously Paid For | Number Extra | | Rate | Calculations |
|---|---|---|---|---|---|---|
| TOTAL CLAIMS | 11 | 20 | 0 | (3) | X $18.00 = | $0 |
| INDEPENDENT CLAIMS | 2 | 3 | 0 | | X $84.00 = | $0 |

| | |
|---|---|
| Since an Official Action set an <u>original</u> due date of <u>December 30, 2003</u>, petition is hereby made for an extension to cover the date this reply is filed for which the requisite fee is enclosed (1 month ($110); 2 months ($400); 3 months ($920); 4 months ($1,440); 5 months ($1,960)): | $0 |
| If Statutory Disclaimer under Rule 20(d) is enclosed, add fee ($110) | + $0 |
| Total of above Calculations = | $0 |
| Reduction by 50% for filing by small entity (37 CFR 1.9, 1.27 & 1.28) | - |
| TOTAL FEES DUE = | $0 |

(1) If entry (1) is less than entry (2), entry (3) is "0".
(2) If entry (2) is less than 20, change entry (2) to "20".
(4) If entry (4) is less than entry (5), entry (6) is "0".
(5) If entry (5) is less than 3, change entry (5) to "3".

## METHOD OF PAYMENT

[ ] Check enclosed as payment.

[ ] Charge "TOTAL FEES DUE" to the Deposit Account No., below.

## AUTHORIZATION

[X] If the above-noted "AMOUNT ENCLOSED" is not correct, the Commissioner is hereby authorized to credit any overpayment or charge any additional fees under 37 CFR 1.16 or 1.17 necessary to maintain pendency of the present application to:
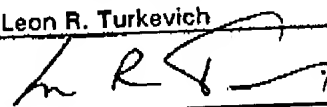
| Deposit Account No.: | 50-0687 |
|---|---|
| OrderNo.: (Client/Matter) | 95-308 |

SUBMITTED BY: MANELLI DENISON & SELTER PLLC

| Typed Name | Leon R. Turkevich | Reg. No. | 34,035 |
|---|---|---|---|
| Signature | | Date | April 30, 2004 |

Docket No.: 95-308

<u>PATENT</u>

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

KANURI

Serial No.: 09/496,016

Filed: February 01, 2000

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:

Group Art Unit: 2697

Examiner: HA, Yvonne Quy M.

For: ARRANGEMENT FOR CONTROLLING LEARNING OF LAYER 3 NETWORK ADDRESSES IN A NETWORK SWITCH

<u>RESPONSE</u>

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the non-final Official Action mailed January 30, 2004, applicant hereby submits the following remarks.

Reconsideration and allowance of the above-referenced application are respectfully requested. Claims 1-11 are pending in the application.

Claims 1-4, 7-9 and 11 stand rejected under 35 USC §103 in view of U.S. Patent Application Publication No. US 2001/0043614 A1 by Viswanadham et al. and U.S. Patent No. 6,580,715 to Bare. This rejection is respectfully traversed. The comments related to Viswanadham et al. filed November 13, 2003 are incorporated in their entirety herein by reference.

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As admitted in the Official Action, Viswanadham fails to disclose disabling learning for an identified network switch port. Moreover, Viswanadham neither discloses nor suggests any reason why learning should be disabled on any one switch port, relative to other switch ports.

However, claim 1 specifics that learning is disabled for "the identified one network switch port", namely the one network switch port identified as transferring data packets between the integrated network switch and the router. Claim 9 specifies "a host controller configured for disabling learning ... based on determining that the one network switch port transfers the data packets between the integrated network switch and the router."

Bare discloses a switch to switch protocol for network load balancing which permits parallel redundant paths in a network to be utilized while reducing loops outside a load balance domain (Abstract). In particular, Bare identifies the need to simultaneously operate redundant paths between switches of the network to maximize utilization of available bandwidth (col. 5, lines 44-48). Further, bare recognizes the need to identify switch ports within a common load balance domain (col. 5, lines 49-57).

Hence, Bare describes a hello protocol to determine which ports of switches within the network are capable of performing load balancing with other switches within a load balance domain, and which eliminates loops outside the load balance domain (col. 6, line 32 to col. 7, line 5). Packet streams are distributed across all possible paths with an effort to keep latency the same across all paths: paths having the lowest cost (based on latency and throughput) will have more traffic added than those with higher cost (col. 9, lines 35- 43).

Column 51, lines 17-42 does not disclose or suggest the claimed disabling learning for an identified network switch port, as asserted. Rather, col. 51, lines 17-42 describe deletion of a

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broadcast path that an adjacent switch has previously relied upon (see col. 51, lines 8-16). In particular, when a switch link receives a switch broadcast add packet, the switch will parse all the edge switch MAC addresses specified in the packet, and for each MAC address add the switch port having received the packet to the broadcast mask for the edge switch and MAC addresses associated with the corresponding MAC address (col. 49, lines 32-41).

Conversely, in deletion of a broadcast path a sending switch sends a broadcast delete packet to an adjacent switch. The broadcast delete packet specifies the sending switch MAC address in the source MAC address field, and a prescribed generic load balance protocol identifier in the destination MAC address field. The receiving switch, in response to receiving a broadcast delete packet, removes the port from the broadcast mask for the given edge switch and associated MAC addresses learned on it if the source switch is forwarding broadcast packets on that port (col. 51, lines 37-42).

However, if the source switch is not forwarding broadcast packets to that switch port, the switch is not removed from the table, and learning can continue (col. 51, lines 42-52). Hence, Bare merely removes learned addresses associated with the broadcast mask in response to a broadcast delete packet.

There is no disclosure or suggestion that learning is disabled, as claimed. In fact, learning of unicast packets continues according to a procedure distinct from the broadcast operation cited in the Official Action (see col. 47, lines 5-8 and cols 73-76). Column 73, lines 1-12, col. 74, lines 5-13, and col. 75, lines 1-24 explicitly specify that learning is still performed for unicast packets, independent of the broadcast path deletion operation cited by the Examiner.

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Hence, Bare explicitly teaches that learning is <u>still</u> to be performed for unicast packets.

Hence, the piecemeal application of Bare is improper: Bare must be considered in its entirety, i.e., <u>as a whole</u>, including portions that would lead away from the claimed invention (see MPEP 2141.02 at page 2100-95 (Rev. 1, Feb. 2000) (citing <u>W.L. Gore & Associates, Inc. v. Garlock, Inc.</u>, 22 USPQ 303 (Fed. Cir. 1983), <u>cert. denied</u>, 469 U.S. 851 (1984))).

Further, Bare makes <u>no reference whatsoever</u> to disabling learning based on whether a network switch port is connected to a router ("transferring data packets between the integrated network switch and a router").

Hence, the hypothetical combination still would neither disclose nor suggest the claimed features of disabling learning by the switching module of network addresses for the data packets transferred by the <u>identified one network switch port</u> (i.e., the network switch port transferring data packets between the integrated network switch and the router). Rather, the hypothetical combination would provide no more than a multilayered switch that supports network load balancing across parallel redundant paths.

Moreover, the hypothetical combination still would not address the problem of router traffic overwhelming an address table (see, e.g., page 2, lines 26-31 and page 4, line 23 to page 5, line 9 of the specification).

An evaluation of obviousness must be undertaken from the perspective of one of ordinary skill in the art <u>addressing the same problems addressed by the applicant</u> in arriving at the claimed invention. <u>Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve</u>, 23 USPQ 416, 420 (Fed. Cir. 1986), <u>cert. denied</u>, 484 US 823 (1987). Thus, the claimed structures and methods cannot be divorced from the problems addressed by the inventor and the benefits resulting from the claimed

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invention. In re Newell, 13 USPQ2d 1248, 1250 (Fed. Cir. 1989). As shown above, the hypothetical combination does not even begin to address the problems contemplated by the applicant, let alone disclose or suggest the features as claimed.

For these and other reasons, the rejection of claims 1-4, 7-9 and 11 should be withdrawn.

Claims 5, 6, and 10 stand rejected under §103 in view of Viswanadham et al. and U.S. Patent No. 6,430,188 to Kadambi. This rejection is traversed. No new grounds of rejection have been presented.

It is noted that this rejection does not rely on Bare as a reference. As admitted in the Official Action in the prior rejection of claims 1-4, 7-9 and 11, Viswanadham fails to disclose disabling learning for an identified network switch port.

Further, the rejection fails to identify how Kadambi discloses or suggests identifying one of the network switch ports that transfer data packets between the integrated network switch port and a router, let alone disabling learning for the data packets transferred by the identified one network switch port. The comments regarding Kadambi submitted June 24, 2003 are incorporated in their entirety herein by reference.

Hence, the rejection fails to establish a prima facie case of obviousness. For these and other reasons, the rejection of claims 5, 6, and 10 should be withdrawn.

In view of the above, it is believed this application is in condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper,

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including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No.

50-0687, under Order No. 95-308, and please credit any excess fees to such deposit account.

Respectfully submitted,

Manelli Denison & Selter, PLLC

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**Date: April 30, 2004**

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